



FLIGHT REPORT

NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD
SFN 50864(12/2014)

ENGINES OFF 02:11:45	HOURS 5.36		PAGE # 1	OF 3
ENGINES ON 20:50:00	DRY ICE RATE 0	1 GEN 3.85	2 GEN 0.10	
TOTAL TIME 05:21:45	DRY ICE (lbs) 0.00	EJCTBL (grams) 0	BIP (grams) 0	

DATE June 29, 2017		DISTRICT 2	SEED # 5	PILOT Marika Diepenbroek				COPILOT Chance Faul				PURPOSE H	REMARKS
Time (HH:MM)	EVENT #	LATITUDE (deg)	LONGITUDE (deg)	CLD BASE (kft)	ALTITUDE (KFT)	UPDRAFT (FT/MIN)	TEMP (°C)	PRECIP CODE**	DRY ICE (sec)	FLARES		WINTIP GEN (#)	
										EJC	BIP		
20:52:13		47.80275	-103.2589		2.0					0	0	0	Engines on in Watford City.
21:02:14		47.80593	-103.2117		4.5					0	0	0	
21:12:16		47.95869	-102.8297		6.0					0	0	0	
21:22:17		48.18932	-102.3100		6.1					0	0	0	
21:30:57		48.26508	-102.4839	7.2	7.0	100	4	2		0	0	0	
21:41:03		48.26996	-102.4883		6.5					0	0	0	
21:45:50	1	48.24903	-102.4670	7	6.4	200	8	3		0	0	1	Left burner on.
21:55:11		48.41943	-102.7113	7	6.3	500	8	0		0	0	1	
22:05:17		48.31332	-103.0885		6.8					0	0	1	
22:14:15		48.11677	-103.1875	7.5	7.6	500	6	4		0	0	1	
22:24:20		47.92624	-103.2421		7.1					0	0	1	
22:34:21		47.89145	-103.1705		7.2					0	0	1	
22:44:22		47.76056	-103.0845		6.9					0	0	1	

**PRECIPITATION INTENSITY

- 0 - No Precipitation
- 1 - virga only, precip not to ground
- 2 - rain shaft to surface, light
- 3 - rain shaft well established, but can be seen through
- 4 - heavy rain shaft, cannot be seen through

MISSION SUMMARY

First we were directed 60 miles east of Williston. The strong storms that other crews were working out were moving out of the district, so we ended up looking for good rain enhancement opportunities. Once we found steady 200 fpm inflow, we lit one burner and headed west. At times when inflow would pick up to 500 fpm or more, we would make loops and then continue heading west. When there became less seeding opportunities to the west, we headed towards some dark bases to the south. We had steady 200 fpm inflow. The meteorologists informed us of a good storm with potential for hail near Stanley so we headed there. We lit both burners when we were getting steady 600-800 fpm inflow, but the best part of the storm was heading out of the district, so we headed towards a line between Stanley and Minot. During this time, there was a decent amount of cloud to ground lightning. We kept one burner on and made north-south racetrack patterns until



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DATE June 29, 2017		DISTRICT 2	SEED # 5	PILOT Marika Diepenbroek				COPILOT Chance Faul				PURPOSE H	REMARKS R - Rain H - Hail O - Other M - Maintenance C - Reconnaissance
Time (HH:MM)	EVENT #	LATITUDE (deg)	LONGITUDE (deg)	CLD BASE (kft)	ALTITUDE (KFT)	UPDRAFT (FT/MIN)	TEMP (°C)	PRECIP CODE**	DRY ICE (sec)	FLARES		WINTIP GEN (#)	
										EJC	BIP		
22:47:08		47.81392	-103.1656	7.5	6.6	400	8	0		0	0	1	
22:57:09		47.89952	-103.3341		6.6					0	0	1	
23:05:54		47.69001	-103.4658	7	6.7	500	8	0		0	0	1	
23:15:55		47.75785	-103.2790		6.6					0	0	1	
23:24:37		47.78343	-103.0737	7	6.6	400	8	3		0	0	1	
23:34:37		47.73196	-102.9304		7.0					0	0	1	
23:38:25	2	47.74642	-102.7242	7.5	7.1	600	8	4		0	0	2	Right burner on.
23:44:17	3	47.82986	-102.4615	8	7.6	500	4	4		0	0	1	Left burner off.
23:54:18		48.04105	-102.2741		6.9					0	0	1	
00:04:23		47.95970	-102.2216		6.7					0	0	1	
00:14:25		47.92473	-102.4595		5.7					0	0	1	
00:24:26		48.00259	-102.6615		5.8					0	0	1	
00:34:27		48.23385	-102.4723		6.0					0	0	1	

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00:43:25		48.23665	-102.2728	6.5	5.8	300	8	4		0	0	1	
00:53:26		48.35419	-101.8289		4.6					0	0	1	
00:58:13		48.37295	-101.7566	6	4.4	200	10	4		0	0	1	
01:06:26		48.23213	-101.9939	5	4.2	500	10	3		0	0	1	
01:15:38		48.19900	-101.9400	5	4.0	700	10	3		0	0	1	
01:25:43		48.11269	-101.9189		4.6					0	0	1	
01:35:43		48.05275	-101.8605		4.5					0	0	1	
01:42:32	4	47.96949	-102.1342	4	4.8	0	9	3		0	0	0	Right burner off.
01:52:33		47.87853	-102.6426		4.4					0	0	0	
02:02:38		47.66417	-103.0573		4.2					0	0	0	
02:11:46		47.80313	-103.2604		2.0					0	0	0	Engines off in Watford City.

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